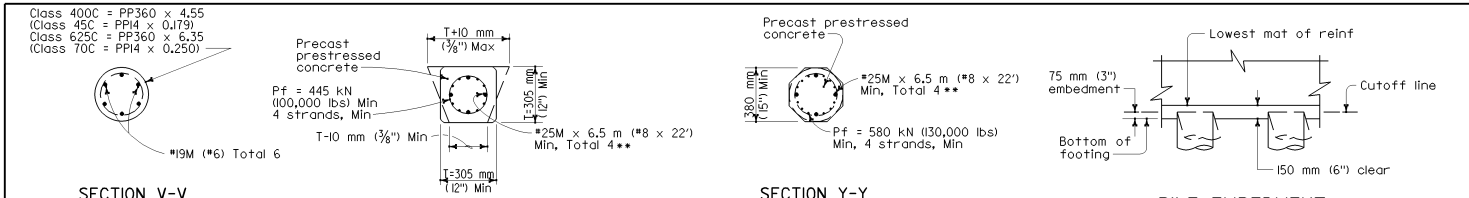


SECTION V-V

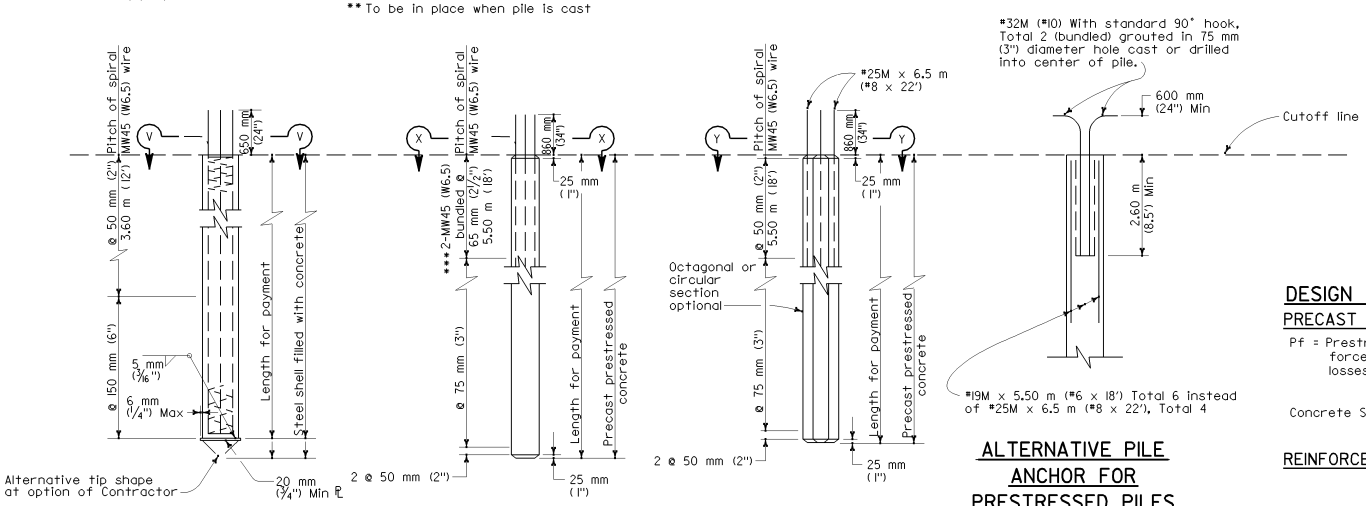
PP = Steel pipe pile

SECTION X-X

** To be in place when pile is cast

SECTION Y-Y

PILE EMBEDMENT



ALTERNATIVE "V"

ALTERNATIVE "X"

***MW70 (W11.0) at 50 mm (2") may be subsituted

ALTERNATIVE "Y"

ALTERNATIVE PILE ANCHOR FOR PRESTRESSED PILES

NOTES

1. Details are the same for both Class 400C (45C) and Class 625C (70C) piles unless noted otherwise.
2. Pile reinforcement extending into a footing shall be hooked as required to provide clearance to top of footing. Piles shall be extended only in accordance with details shown elsewhere in these plans.
3. Lapped splices in sprial pile reinforcement shall be lapped 80 wire diameters minimum. Sprial pile reinforcement at splices and at ends shall be terminated by a 135° hook with 150 mm (6") tail hooked around a longitudinal bar or strand.
4. At the Contractor's option, alternative steel pipe with at least the diameter and wall thickness shown on these plans may be used. The diameter shall not exceed 460 mm (18").
5. All concrete in piles shall contain not less than 450 kilograms of cement per cubic meter (752 pounds per cubic yard).
6. A 50 mm (2") clearance to sprial reinforcement shall be maintained if section used is larger than the minimum section shown.
7. Maximum cut-off length at the top of the Alternative "X" and Alternative "Y" piles is 3 m (10').
8. For additional longitudinal reinforcement and prestressing for anchor piles and load test piles, see "Load Test Pile Details (2)", Standard Plan B2-10.

DESIGN NOTES

PRECAST PRESTRESSED PILES

Pf = Prestressing force (after losses)

If section used is larger than the minimum section shown, then "Pf" shall provide 5 Mpa (700 psi) minimum.

Concrete Strength f'c @ 28 days = 42 MPa (6,000 psi) Alternative "X"
35 MPa (5,000 psi) Alternative "Y"
f'ci @ transfer = 28 MPa (4,000 psi)

REINFORCED CONCRETE

f'c = 28 MPa (4,000 psi)
fy = 420 MPa (60,000 psi)

STEEL PIPE PILE

Fy (Minimum yeild strength) = 240 MPa (35,000 psi)
Fu (Minimum tensile strength) = 400 MPa (60,000 psi)

DESIGN CAPACITY

Class 400 (45C)
Compression = 400 kilonewtons (45 ton) [Service state]
800 kilonewtons (90 ton) [Nominal axial resistance]

Tension = 400 kilonewtons (45 ton) [Nominal axial resistance]

Class 625 (70C)
Compression = 625 kilonewtons (70 ton) [Service state]
1250 kilonewtons (140 ton) [Nominal axial resistance]

Tension = 625 kilonewtons (70 ton) [Nominal axial resistance]

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PILE DETAILS
CLASS 400C (45C) AND CLASS 625C (70C)

These "Standard Plans for Construction of Local Streets and Roads" contain units in two systems of measurement: International System of Units (SI or "metric") and United States Standard Measures shown in the parentheses ( ). The measurements expressed in the two systems are not necessarily equal or interchangeable. See the "Foreword" at the beginning of this publication.

NO SCALE

B2-6

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

Daniel T. Adams
REGISTERED CIVIL ENGINEER

July 1, 2002
PLANS APPROVAL DATE

Daniel T. Adams, No. C46476, Exp. 6-30-03, CIVIL, REGISTERED PROFESSIONAL ENGINEER, STATE OF CALIFORNIA

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